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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,953

05/02/2006

Tomoharu Sasaoka

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EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,953	Applicant(s) SASAKA, TOMOHARU	
	Examiner Jason M. Greene	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims

1. With regard to claim 1, the Examiner suggests Applicants rewrite the phrase “the separate substrate” at the end of line 7 as “the separator substrate” to correct an apparent typographical error.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Fischer et al. (US 2003/0180598 A1).

Fischer et al. discloses a fuel cell separator comprising a separator substrate (4) made of metal which has at least one open portion (an inherent manifold portion) through which a fluid can pass provided in a predetermined portion, and a film coating member (3) that coats a predetermined area including the open portion of the separator

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substrate, wherein the film coating member adheres to at least a portion of the substrate, wherein the separator substrate is provided with a front surface and a back surface, a pair of the film coating members are provided on the front and back surfaces, and the pair of film coating members adheres to a portion of the separator corresponding to at least a peripheral edge portion of the open portion, wherein the film coating member is adhesion treated by adhesion by an adhesive (the film itself when molten), wherein the film coating member comprises a resin material (see paragraph [0049]), and wherein a plurality of the fuel cell separators are used in a fuel cell that is used in a vehicle (see paragraphs [0065] to [0066]) in Fig. 3 and paragraphs [0001] to [0067].

4. Claims 7, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Fischer et al. (US 2003/0180598 A1).

Fischer et al. discloses a method for manufacturing the fuel cell separator of claim 1 comprising adhering the film coating member to a portion of the separator substrate (including injection molding) in Fig. 3 and paragraphs [0001] to [0067].

5. Claims 1-6 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Uejima et al. (US 2004/0106032 A1).

Uejima et al. discloses a fuel cell separator (10) comprising a separator substrate (1) made of metal which has at least one open portion (an inherent manifold portion) through which a fluid can pass provided in a predetermined portion, and a film coating

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member (2) that coats a predetermined area including the open portion of the separator substrate, wherein the film coating member adheres to at least a portion of the substrate, wherein the separator substrate is provided with a front surface and a back surface, a pair of the film coating members are provided on the front and back surfaces, and the pair of film coating members adheres to a portion of the separator corresponding to at least a peripheral edge portion of the open portion, wherein the film coating member is adhesion treated by adhesion by an adhesive (the film itself), wherein the film coating member comprises a resin material, wherein the metal is SUS 304 which can be gold coated to improve corrosion resistance, and wherein a plurality of the fuel cell separators are used in a fuel cell that is used in a vehicle in Figs. 1-4 and paragraphs [0005] to [0062].

6. Claims 7, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Uejima et al. (US 2004/0106032 A1).

Uejima et al. discloses a method for manufacturing the fuel cell separator of claim 1 comprising adhering the film coating member to a portion of the separator substrate in Figs. 1-4 and paragraphs [0005] to [0062].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 2003/0180598 A1) in view of Middelman et al. (US 2004/0023095 A1).

Fischer et al. teaches the separator substrate being formed from corrosion resistant metals like Ni-Cr steel, but does not explicitly teach stainless steels or titanium. Middelman et al. teaches it being known in the art to use to stainless steel and gold-coated stainless steel as fuel cell separator plates.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the metals of Middelman et al. for the metals of Fischer in that they are known alternatives in the art of fuel cell separator substrates.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 2003/0180598 A1).

While Fischer et al. teaches a thermo-compression process (injection molding), it is silent as to the temperature, pressure and duration. However, these are well known variables in the art and could be readily selected by one having ordinary skill as a matter of design choice.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Yagi et al. reference discloses a similar separator.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Jason M. Greene
Primary Examiner
Art Unit 1797

/Jason M. Greene/
3/27/09

jmg
March 27, 2009